

Product datasheet for RC204447

MICA (NM_000247) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MICA (NM_000247) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MICA
Synonyms:	MIC-A; PERB11.1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC204447 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGGGCTGGGCCGGTCTTCTGCTTCTGGCTGGCATCTTCCCTTTTGCACCTCCGGGAGCTGCTGCTG
AGCCCCACAGTCTTCGTTATAACCTCACGGTGTCTGCTGGGATGGATCTGTGCAGTCAGGGTTTCTCAC
TGAGGTACATCTGGATGGTCAGCCCTTCTGCGCTGTGACAGGCAGAAATGCAGGGCAAAGCCCCAGGGA
CAGTGGGCAGAAGATGTCCTGGGAAATAAGACATGGGACAGAGACCAGAGACTTGACAGGGAACGGAA
AGGACCTCAGGATGACCCTGGCTCATATCAAGGACCAGAAAGAAGGCTTGCAATCCCTCCAGGAGATTAG
GGTCTGTGAGATCCATGAAGACAACAGCACCAGGAGCTCCAGCATTCTACTACGATGGGAGCTCTTC
CTCTCCAAAACCTGGAGACTGAGGAATGGACAATGCCCCAGTCTCCAGAGCTCAGACCTTGCCATGA
ACGTGAGGAATTTCTTGAAGGAAGATGCCATGAAGACCAAGACACACTATCACGCTATGCATGCAGACTG
CCTGCAGGAACACGGCGATATCTAAAAATCCGGCGTAGTCTGAGGAGAACAGTGCCCCCATGGTGAAT
GTCACCCGACGAGGCCCTCAGAGGGCAACATTACCGTGACATGCAGGGCTTCTGGCTTCTATCCCTGGA
ATATCACACTGAGCTGGCGTCAGGATGGGTATCTTTGAGCCACGACACCCAGCAGTGGGGGGATGTCCT
GCCTGATGGGAATGGAACCTACCAGACCTGGGTGGCCACCAGGATTTGCCAAGGAGAGGAGCAGAGGTTT
ACCTGCTACATGGAACACAGCGGGAATCACAGCACTCACCTGTGCCCTCTGGAAAGTGCTGGTGCTTC
AGAGTCATTGGCAGACATTCATGTTTCTGCTGTTGCTGCTGCTGCTATTTTTGTTATTATTATTTCTA
TGTCGGTTGTTGAAGAAGAAAACATCAGCTGCAGAGGGTCCAGAGCTCGTGAGCCTGCAGGTCCTGGAT
CAACACCCAGTTGGGACGAGTGACCACAGGGATGCCACAGCTCGGATTTAGCCTCTGATGTCAGATC
TTGGTCCACTGGCTCCACTGAGGGCACC

ACGGTACGGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC204447 protein sequence
 Red=Cloning site Green=Tags(s)

MGLGPVFLLLAGIFPFAPPGAAEPHSLRYNLTVLSWDGSVQSGFLTEVHLDGQPFLRCDRQKCRAKPQG
 QWAEDVLGNKTWDRETRDLTGNGKDLRMTLAHIKDQKEGLHSLQEIRVCEIHEDNSTRSSQHFYYDGELF
 LSQNLETEEWTMPQSSRAQTLAMNVRNFLKEDAMKTKTHYHAMHADCLQELRRYLKSGVVLRRTPPMVN
 VTRSEASEGNITVTCRASGFYPWNITLSWRQDGVSLSHDTQQWGDVLPDNGTYQTWVATRICQGEQRF
 TCYMEHSGNHSTHPVPSGKVLVLQSHWQTFHVSAYAAAAIFVIIIFYVRCCKKTSAAEGPELVSLQVLD
 QHPVGTSDHRDATQLGFQPLMSDLGSTGSTEGT

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6138_c01.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

ACCN: NM_000247

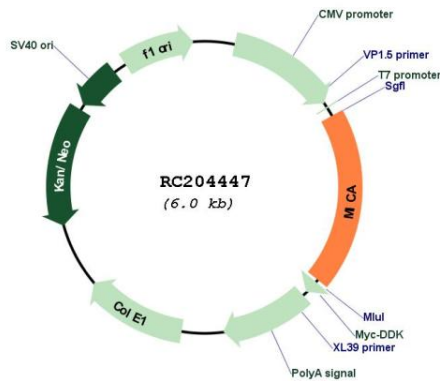
ORF Size: 1149 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

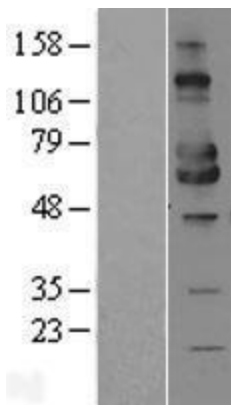
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
Components:	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
Reconstitution Method:	<ol style="list-style-type: none">1. Centrifuge at 5,000xg for 5min.2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.3. Close the tube and incubate for 10 minutes at room temperature.4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_000247.3
RefSeq Size:	1410 bp
RefSeq ORF:	1152 bp
Locus ID:	100507436
UniProt ID:	Q29983
Cytogenetics:	6p21.33
Domains:	MHC_I, IGc1
MW:	42.9 kDa
Gene Summary:	This gene encodes the highly polymorphic major histocompatibility complex class I chain-related protein A. The protein product is expressed on the cell surface, although unlike canonical class I molecules it does not seem to associate with beta-2-microglobulin. It is a ligand for the NKG2-D type II integral membrane protein receptor. The protein functions as a stress-induced antigen that is broadly recognized by intestinal epithelial gamma delta T cells. Variations in this gene have been associated with susceptibility to psoriasis 1 and psoriatic arthritis, and the shedding of MICA-related antibodies and ligands is involved in the progression from monoclonal gammopathy of undetermined significance to multiple myeloma. Alternative splicing of this gene results in multiple transcript variants. [provided by RefSeq, Jan 2014]

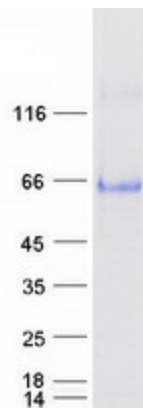
Product images:



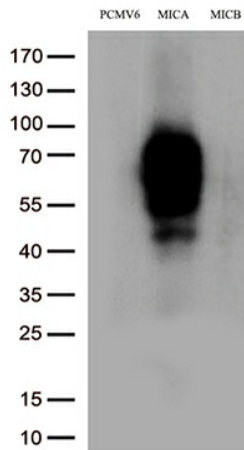
Circular map for RC204447



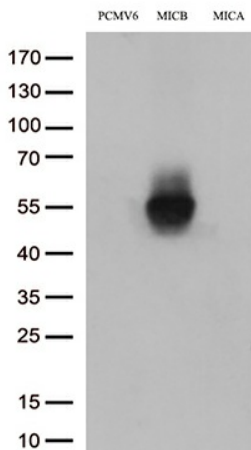
Western blot validation of overexpression lysate (Cat# [LY400095]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204447 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified MICA protein (Cat# [TP304447]). The protein was produced from HEK293T cells transfected with MICA cDNA clone (Cat# RC204447) using MegaTran 2.0 (Cat# [TT210002]).



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY MICA/MICB (Cat# RC204447/Cat# [RC222315] Middle/, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-MICA antibody (Cat# [TA813288])(1:1000)



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY MICB/MICA (Cat# [RC222315]/Cat# RC204447 Middle/, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-MICB antibody (Cat# [TA813500])(1:1000)